

Evaluating a Messaging Campaign in the United States

Hypotheses and Analytic Plan

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Hypotheses

The overarching goal of this study is to evaluate the effectiveness of environmental and health messages in the “Meatless Monday” campaign in discouraging red meat consumption. We have the following prediction:

Environmental and health messages about red meat will be more effective than control messages at discouraging participants from wanting to consume red meat (measured with perceived message effectiveness (PME) scale). Additionally, health messages will be more effective than environmental messages at discouraging participants from wanting to consume red meat.

We will also test the following predictions about our secondary outcomes: Environmental messages and health messages (vs. control) – and health messages (vs. environment) – will lead to increases in: reported attention, negative affect message reactions, cognitive elaboration, likelihood of discussing the messages with others, and intention to reduce red meat consumption in the next 30 days.

Analyses

We will use a two-sided critical alpha of 0.05 to conduct all statistical tests. All confidence intervals presented will be 95% and two-sided. For our main outcome, PME, we will take the average of the 4 items for each product type if $\alpha > .70$. We will use complete case analysis to handle any missing data.

We will descriptively report unadjusted means and percentages for the primary and secondary outcomes. For significance testing of our hypotheses, we will run logistic regression for dichotomous variables and linear regression for continuous variables. We will use the margins command to examine all pairwise comparisons per the hypotheses above.

Exploratory analysis will examine whether the frequency of consumption of red meat moderates the effect of environmental or health messages on PME. To test whether this characteristic moderates the effect of environmental or health messages on PME, we will fit a linear regression model, with trial arm, the moderator, and their interaction as predictors. We will probe significant interactions by calculating the marginal effect of environmental and health messages on the outcome at different levels of the moderating variable. We will use a joint chunk test to test for the statistical significance of the interaction term. Moderation analyses will use a Bonferroni-corrected p -value.